

**Commerce 4FY3  
Introduction to FinTech  
Fall 2023 Course Outline**

**Information, Marketing, Operations Area  
DeGroote School of Business  
McMaster University**

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***INSTRUCTOR AND CONTACT INFORMATION***

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**C01: Mon 11:30-14:20**

**Martin Butcher**

butchm1@mcmaster.ca

Telephone: (905) 403-8286

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***COURSE ELEMENTS***

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Credit Value: 3	Leadership: Yes	IT skills: No	Global view: Yes
A2L: Yes	Ethics: Yes	Numeracy: no	Written skills: Yes
Participation: Yes	Innovation: Yes	Group work: Yes	Oral skills: Yes
Evidence-based: Yes	Experiential: Yes	Final Exam: No	Guest speaker(s): No

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***COURSE INFORMATION***

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One 3hr lecture per week, delivered in person, for twelve weeks; plus, two 3hr on-line quizzes; plus, a group project. No mid-term, no final exam, no weekly tutorials.

Financial technology is at the forefront of economic development and is paving the way for tectonic shifts in long established orders. It is giving rise to rapid changes in the way we make, manage, interact with, and even define, money. And while this can mean uncertainty and upheaval for incumbents, it presents a world of possibility for those able to innovate and adapt. The course will provide a broad overview of the FinTech industry and lay the groundwork for students to analyze and identify opportunities in this emerging sector.

This course is based around education through experiential learning, inquiry, and case studies. It will also involve readings, lectures, class discussions and collaborative group work. The subject matter will give you an understanding of Financial Technology and provide you with insight to

critically assess the trajectory of the industry and develop new innovations in Financial Technology.

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### ***IMPORTANT LINKS***

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- [Mosaic](#)
  - [Avenue to Learn](#)
  - [Student Accessibility Services - Accommodations](#)
  - [McMaster University Library](#)
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### ***COURSE LEARNING OUTCOMES***

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Upon completion of the two on-line quizzes and group project, students will be able to complete the following tasks:

- Interview knowledgeable as to what fintech is, and why it is a game-changer.
  - Demonstrate an interview awareness of the corporate social responsibility, and privacy issues associated with the use of fintech.
  - Evidence mechanical knowledge of the nuts and bolts of blockchain, smart contracts, automation, and its business impacts.
  - Evidence mechanical knowledge of Bitcoin, Utility Token, Non-Fungible Token, Central Bank Digital Currency, Stable Coin, and financial regulation.
  - Conceive, produce, and present a proposed Fintech White Paper.
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### ***COURSE LEARNING GOALS***

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The course will provide students with an introduction to Financial Technology. Specifically, it will enable students to understand the following:

- What FinTech is, why it is a game-changer, who this technology is affecting and how, the corporate social responsibility associated with its use, and the current stage of development.
- The nuts and bolts of blockchain, smart contracts, automation, and its business impacts.
- Bitcoin, Utility Token, Non-Fungible Token, Central Bank Digital Currency, Stable Coin, and financial regulation.
- Corporate Social Responsibility, privacy in the fintech world, use of artificial intelligence.
- Assessment of existing FinTech applications through the use of case studies.
- Innovation strategies at large financial institutions
- Evaluation of a proposed Fintech White Paper.

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## ***COURSE MATERIALS AND READINGS***

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Avenue registration for course content, readings, and case materials

➤ <https://avenue.mcmaster.ca/>

\$ FREE

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## ***CLASS FORMAT***

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This is an in-person 3-hour course. The three hours will consist of a lecture, lengthier discussion, and more in-depth applied exercises (when doing case studies). There will be a short break part way through at a convenient time based on what we are working on. Please use the time to take care of personal needs of various kinds.

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## ***COURSE OVERVIEW AND ASSESSMENT***

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Learning in this course results primarily from case study, templated evaluation, and in-class discussion. The balance of the learning results from the lectures, assignments, and group projects. All work will be evaluated on an individual basis; except for group work where all group members will share the same grade.

Missed tests will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or MSAF.

Your final grade will be calculated as follows:

<b>Test ONE (week 6)</b>	<b>35%</b>
<b>Test TWO (week 12)</b>	<b>35%</b>
<b>Group Whitepaper (week 13)</b>	<b>30%</b>
<b>Total</b>	<b>100%</b>

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## ***COURSE DELIVERABLES***

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### ***Test ONE (35%) – Week 06***

An open-book, 3-hour on-line multiple choice/multi-select, true/false quiz, held during class time. The test will pose 75 questions, cover all content from weeks 1 through 4 inclusive, and automatically post your grade into the grade book upon completion.

**Test TWO (35%) – Week 12**

An open-book, 3-hour on-line multiple choice/multi-select, true/false quiz, held during class time. The test will pose 75 questions, cover all content from weeks 7 through 11 inclusive, and automatically post your grade into the grade book upon completion.

**Group Whitepaper (30%) – Due Week 13**

As a group of 5, your group will propose a FinTech innovation and draft up a White Paper against a standardized template. Innovations can be wholly novel products/services not yet available in the market, or improvements upon existing FinTech solutions already competing in the market.

- **December 04, Group Presentation (5%).** Your group will present a Power Point abbreviated version of the White Paper that you have produced, that will be graded against a pre-published marking rubric.
- **December 06, White Paper (25%).** Your group will e-mail your completed White Paper to the course instructor by midnight Eastern Standard Time, the last day of the Fall Semester. Upon your group's delivery of the White Paper, you will be done for the course!

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**COMMUNICATION AND FEEDBACK**

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Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Area Administrative Assistants.

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**REQUESTING RELIEF FOR MISSED ACADEMIC WORK**

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Students may request relief from a regularly scheduled midterm, test, assignment, or another course component. Please refer to the policy and procedure on the DeGroot website at the link below.

<http://ug.degroot.mcmaster.ca/forms-and-resources/misled-course-work-policy/>

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**COURSE MODIFICATION**

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From time to time there may be a need to remove/add topics or to change the schedule or the delivery format. If these are necessary, you will be given as much advance notice as possible.

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## ***GENERATIVE AI***

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### USE PROHIBITED

Students are not permitted to use generative AI in this course. In alignment with [McMaster academic integrity policy](#), it “shall be an offence knowingly to ... submit academic work for assessment that was purchased or acquired from another source”. This includes work created by generative AI tools. Also state in the policy is the following, “Contract Cheating is the act of “outsourcing of student work to third parties” (Lancaster & Clarke, 2016, p. 639) with or without payment.” Using Generative AI tools is a form of contract cheating. Charges of academic dishonesty will be brought forward to the Office of Academic Integrity.

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## ***ACADEMIC INTEGRITY***

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You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. **It is your responsibility to understand what constitutes academic dishonesty.**

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/), located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g., the submission of work that is not one’s own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

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## ***COURSES WITH AN ON-LINE ELEMENT***

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Students should be aware that, when they access the electronic components of a course, private information such as first and last names, usernames for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course.

The available information is dependent on the technology used. Continuation of a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure, please discuss this with the course instructor.

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### ***CONDUCT EXPECTATIONS***

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As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behavior’s that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

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### ***ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES***

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Students with disabilities who require academic accommodation must contact [Student Accessibility Services](#) (SAS) at 905-525-9140 ext. 28652 or [sas@mcmaster.ca](mailto:sas@mcmaster.ca) to make arrangements with a Program Coordinator. For further information, consult McMaster University’s [Academic Accommodation of Students with Disabilities](#) policy.

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### ***ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)***

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Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should normally submit their request to their Faculty Office **within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar’s Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

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### ***COPYRIGHT AND RECORDING***

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Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical, and artistic work, **including lectures** by university instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

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### ***EXTREME CIRCUMSTANCES***

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The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labor disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

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### ***ACKNOWLEDGEMENT OF COURSE POLICIES***

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Your enrolment in Commerce 4FY3 will be considered to be an implicit acknowledgement of the course policies outlined above, or of any other that may be announced during lecture and/or on A2L. **It is your responsibility to read this course outline, to familiarize yourself with the course policies and to act accordingly.**

Lack of awareness of the course policies **cannot be invoked** at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.

## COURSE SCHEDULE

WEEK	WEEK OF			LECTURE AND ASSIGNMENT
1	Sep 11	Module 1.1	BLOCKCHAIN TECHNOLOGY	<b>Introduction and course overview.</b> <ol style="list-style-type: none"> <li>1. Meet &amp; greet</li> <li>2. What is FinTech?</li> <li>3. Why is it a game-changer?</li> <li>4. Who is it affecting?</li> <li>5. Corporate Social Responsibility</li> <li>6. Where today's technology is at.</li> </ol>
2	Sep 18	Module 1.2		<b>Nuts and bolts of Blockchain.</b> <ol style="list-style-type: none"> <li>1. Blockchain benefits</li> <li>2. Block structure walk-through</li> <li>3. Bitcoin protocol walkthrough</li> <li>4. Smart contract walkthrough</li> <li>5. Consensus mechanisms</li> <li>6. Types of blockchain</li> <li>7. Layer architecture</li> </ol>
3	Sep 25	Module 1.3		<b>The Whitepaper.</b> <ol style="list-style-type: none"> <li>1. Business vs IT view</li> <li>2. Solution Architecture</li> <li>3. Whitepaper evaluation</li> </ol>
4	Oct 02	Module 2.1	BLOCKCHAIN ECONOMICS	<b>Disintermediation/network business model.</b> <ol style="list-style-type: none"> <li>1. Pros and cons of blockchain</li> <li>2. Costing and financials impact</li> <li>3. Corporate social responsibility</li> <li>4. Using the long straddle</li> <li>5. Tokens and the OSC</li> </ol>
5	Oct 09			<b>MID-TERM RECESS</b>
6	Oct 16			<b>Test ONE (35%)</b>
7	Oct 23	Module 2.2		<b>Case Discussion: Lending Loop</b> <ol style="list-style-type: none"> <li>1. P2P Lending</li> <li>2. Changing credit metrics</li> </ol>



8	Oct 30	Module 2.3	BUSINESS USE CASES	<b>Case Discussion: Robo-Advisors to Humans: We come in Peace.</b> 1. Automated wealth management 2. Changing organizational structures
9	Nov 06	Module 3.1		<b>Case Discussion: Bitcoin: Investment or Illusion</b> 1. Bitcoin Protocol 2. Hamilton vs Satoshi 3. Central Bank Digital Currency 4. Non-Fungible Token
10	Nov 13	Module 3.2		<b>Case Discussion: CIBC - Internalizing Open Innovation</b> FinTech innovation in Canadian financial institutions. 1. Corporate Social Responsibility 2. Change management premium
11	Nov 20	Module 3.3		<b>Case Discussion: The Rise of Ant Financial.</b> Fin Tech innovation in international markets. 1. Size is not protection 2. Marketing: Product/Experience/Story.
12	Nov 27	Module 4.1	WHITE PAPERS	<b>Test TWO (35%)</b>
13	Dec 04	Module 4.2		<b>GROUP WHITE PAPER PRESENTATIONS (5%)</b>
13	Dec 06			<b>GROUP WHITE PAPER (25%) Due midnight Wednesday Dec-06</b>